

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketthrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claim 11 and ADD claims 14 and 15 in accordance with the following:

1. (PREVIOUSLY PRESENTED) A display device with a polysilicon substrate, comprising:

- a display region;
- a driving region;
- a first plurality of thin film transistors, each transistor including a source, gate and drain region, and located in the display region;

- a second plurality of thin film transistors, each transistor including a source, gate and drain region, and located in the driving region;

- primary crystal grain boundaries in the polysilicon substrate in the display region and in the driving region;

- secondary crystal grain boundaries in the polysilicon substrate in the display region and in the driving region;

- wherein the primary crystal grain boundaries are located within the gate regions of the first plurality of thin film transistors and are inclined to a first direction of current flowing from source to drain of each of the first plurality of thin film transistors in the display region at an angle of -30° to 30° and the secondary crystal grain boundaries are located within the gate regions of the first plurality of thin film transistors and are inclined to a second direction of current flowing from source to drain of each of the first plurality of thin film transistors in the display region, and

- wherein the primary crystal grain boundaries are located within the gate regions of the second plurality of thin film transistors and are inclined to the second direction of current flowing from source to drain of each of the second plurality of thin film transistors in the driving region at an angle of 30° to 150° and the secondary crystal grain boundaries are located within the gate regions of the second plurality of thin film transistors and are inclined to the first direction of the current flowing from source to drain of each of the second plurality of thin film transistors in the driving region.

2. (PREVIOUSLY PRESENTED) The display device according to claim 1, wherein the primary crystal grain boundaries of each of the first plurality of thin film transistors, are parallel to the first direction of current.

3. (CANCELLED)

4. (ORIGINAL) The display device according to claim 1, wherein the display device is an organic electroluminescent display device.

5. (ORIGINAL) The display device according to claim 1, wherein the polysilicon substrate is fabricated by an SLS (sequential lateral solidification) method.

6. (CANCELLED)

7. (PREVIOUSLY PRESENTED) The display device according to claim 1, wherein the primary crystal grain boundaries of each of the second plurality of thin film transistors, are perpendicular to the second direction of current.

8 - 10. (CANCELLED)

11. (CURRENTLY AMENDED) A display device with a polysilicon substrate comprising:

a-driving and display regions, each having a plurality of thin film transistors formed thereon, and each thin film transistor including primary and secondary crystal grain boundaries;

a plurality of thin film transistors in the driving region;

wherein the primary crystal grain boundaries in the polysilicon substrate formed in the driving region; and

secondary crystal grain boundaries in the polysilicon substrate in the driving region;

wherein the primary crystal grain boundaries are inclined to a direction substantially perpendicular to aef current flowing from source to drain of each of the plurality of thin film transistors in the driving region at an angle of 30° to 150° and the secondary crystal grain boundaries in the polysilicon substrate formed in the driving region are inclined to a direction substantially parallel to the current flowing from the source to the drain of each of the plurality of

thin film transistors, and

wherein the primary crystal grain boundaries in the polysilicon substrate formed in the display region are inclined to a direction substantially parallel to the current flowing from the source to the drain of each of the plurality of thin film transistors and the secondary crystal grain boundaries in the polysilicon substrate formed in the display region are inclined to a direction substantially perpendicular to the current flowing from the source to the drain of each of the plurality of thin film transistors.

12. (PREVIOUSLY PRESENTED) A display device with a polysilicon substrate comprising:

- a display region;
- a driving region;
- a plurality of thin film transistors formed in the display and in the driving regions;
- primary and secondary crystal grain boundaries formed in the polysilicon substrate in the display and the driving regions;

wherein the primary crystal grain boundaries formed in the display region are inclined to a direction of current flowing from source to drain at an angle of -30° to 30° and the secondary crystal grain boundaries formed in the display region are substantially perpendicular to the current flowing from the source to the drain; and

wherein the primary crystal grain boundaries formed in the driving region are inclined to a direction of current flowing from source to drain at an angle of 30° to 150° and the secondary crystal grain boundaries formed in the driving region are substantially parallel to the current flowing from the source to the drain.

13. (WITHDRAWN) A method of forming a display device having a polysilicon substrate, comprising:

- a driving region;
- a plurality of thin film transistors in the driving region;
- primary crystal grain boundaries in the polysilicon substrate in the driving region; and
- secondary crystal grain boundaries in the polysilicon substrate in the driving region;

wherein the primary crystal grain boundaries are inclined to a direction of current flowing from source to the drain of each of the plurality of thin film transistors at an angle of 30° to 150° and the secondary crystal grain boundaries are substantially parallel to the current flowing from the source to the drain, and

wherein the polysilicon substrate is fabricated by a sequential lateral solidification (SLS) method.

14. (NEW) The display device according to claim 11, wherein the polysilicon substrate is fabricated by an SLS (sequential lateral solidification) method.

15. (NEW) The display device according to claim 12, wherein the polysilicon substrate is fabricated by an SLS (sequential lateral solidification) method.